Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-2017-08-31-02** **Date: 02-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	31-08-17
Sample ID No	:	2017-08-31-02/01
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	31-08-17

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**67**	60 to 70
2	Softening Point, °C	**53.4**	Min. 40°C
3	Ductility, cm	**93**	Min. 75cm
4	Flash point, °C	**229.8**	Min. 220°C
	Fire point, °C	**238.5**	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

AE ward no 5

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST RESULTS OF GRADATION FOR GSB
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-08-22-01** **Date: 25-08-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	22-08-17
Sample ID No	:	2017-08-22-01/01
Type of Mix	:	GSB (Granular Sub Base)
Date of test	:	23-08-17
Oven Dry Weight	:	10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75	0	0	0.0	100.0	100
53	883	883	8.8	91.2	80-100
26.5	1735	2618	26.2	73.8	55-90
9.5	1326	3944	39.4	60.6	35-65
4.75	1532	5476	54.8	45.2	25-55
2.36	1769	7245	72.5	27.6	20-40
0.425	1595	8840	88.4	11.6	10-25
0.075	978	9818	98.2	1.8	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table 400.2 MORTH Specification
1	Liquid Limit, %	21.33%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

Page 1/1
End of Report

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2017-08-28-03** **Date: 30-08-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	28-08-17
Sample ID No	:	2017-08-28-03/01
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	28-08-17
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	325	325	3.0	97.0	95-100
22.4	2264	2589	23.5	76.5	60-80
11.2	2172	4761	43.3	56.7	40-60
4.75	2267	7028	63.9	36.1	25-40
2.36	1618	8646	78.6	21.4	15-30
0.6	628	9274	84.3	15.7	8-22
0.075	1368	10642	96.7	3.3	0-5

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2017-08-28-03** **Date: 30-08-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	28-08-17
Sample ID No	:	2017-08-28-03/01
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-08-17

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	302.6	302.6
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	228.5	228.3
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.2	0.3
5	Aggregate impact value	(B/A)*100	24.4	24.5
6	Aggregate impact value (Mean of two tests)	Pecentage	24.4	

Note:-
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2017-08-28-03** **Date: 30-08-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	28-08-17
Sample ID No	:	2017-08-28-03/01
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-08-17

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.5%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	13.1%	
Combined Flakiness and Elongation Index for WMM	25.6%	

Note:-
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

Lab ID	:	**CP-RW-2017-09-04-04** **Date: 08-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangaore.
Address	:	Byatarayanapura Sub Division, BBMP, Banglore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in Ward No.05, Byatarayanapura Sub Division.
Agency	:	Sri.Gopi Reddy No.03, 1st Cross, 1st Main, Ramachandrappa layout, Arebic collage post, erannapalya Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-09-17
Sample ID No	:	2017-09-04-04/01
Type of Mix	:	BM (Bituminous Macadam)
Date of test	:	05-09-17

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	13.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	7.2		
Strength	Aggregate Impact Value	25.2	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.51	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.17	Maximum 2%	IS:2386 Part III

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-09-04-04** **Date: 07-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangaore.
Address	:	Byatarayanapura Sub Division, BBMP, Banglore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in Ward No.05, Byatarayanapura Sub Division.
Agency	:	Sri.Gopi Reddy No.03, 1st Cross, 1st Main, Ramachandrappa layout, Arebic collage post, erannapalya Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-09-17
Sample ID No	:	2017-09-04-04/01
Type of Mix	:	BM-Plant (Bituminous Macadam)
Date of test		05-09-17
Weight of Sample(gm)	:	5000

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	108	108	2.2	97.8	90-100
13.2	1403	1511	30.2	69.8	56-88
4.75	1989	3500	70.0	30.0	16-36
2.36	896	4396	87.9	12.1	4-19
0.3	297	4693	93.9	6.1	2-10
0.075	258	4951	99.0	1.0	0-8
PAN	49	5000	100.0	0.0	0

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2017-09-04-04** **Date: 08-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangaore.
Address	:	Byatarayanapura Sub Division, BBMP, Banglore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in Ward No.05, Byatarayanapura Sub Division.
Agency	:	Sri.Gopi Reddy No.03, 1st Cross, 1st Main, Ramachandrappa layout, Arebic collage post, erannapalya Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-09-17
Sample ID No	:	2017-09-04-04/01
Type of Mix	:	BM(Bituminous Macadam)
Date of test	:	05-09-17

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-6
1	98.5	1.5	98.5	Minimum Retained Coating 95%
2	99.0	1.0		
3	98.0	2.0		

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

****End of Report****

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2017-09-01-02** **Date: 04-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	01-09-17
Sample ID No	:	2017-09-01-02/01
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	02-09-17
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

Ward No 5

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2017-09-01-02** **Date: 05-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	01-09-17
Sample ID No	:	2017-09-01-02/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	02-09-17

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	11.8		
Strength	Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.21	Maximum 2%	IS:2386 Part III

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

AE Ward No 5 M.E. 1st Stage

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

Page 1/1
End of Report

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2017-09-01-02** **Date: 05-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	01-09-17
Sample ID No	:	2017-09-01-02/01
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	02-09-17

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2017-09-01-02** **Date: 05-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	01-09-17
Sample ID No	:	2017-09-01-02/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	02-09-17

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	–

Note:-
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	**CP-RW-2017-09-18-03**	**Date: 20-09-18**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangalore.	
Address	:	Byatarayanapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in ward No.05 Byatarayanapura Sub Division.	
Agency	:	Sri.Gopi reddy, No.03, 1st cross, 1st main Ramachandrappa layout, Arebic college post, erannapalya Bangalore-560045	
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	18-09-17	
Sample ID No	:	2017-09-18-03/01	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	18-09-18	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	501
2	Weight of the sample After extraction	B	466	469
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.80	6.39
4	Average percentage	%	6.6	

BX ward No 5

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL|
GEO TECHNICAL| PROJECT MANAGEMENT| SURVEYING SERVICES |

Lab ID : **CP-RW-2017-09-18-03** **Date: 20-09-18**

Sample ID : **2017-09-18-03/01**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 466

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	62	66	14.2	85.8	70-88
4.75	112	178	38.2	61.8	53-71
2.36	88	266	57.1	42.9	42-58
1.18	29	295	63.3	36.7	34-48
0.6	11	306	65.7	34.3	26-38
0.3	46	352	75.5	24.5	18-28
0.15	45	397	85.2	14.8	12-20
0.075	55	452	97.0	3.0	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.9	99.1	90-100
9.5	69	73	15.6	84.4	70-88
4.75	113	186	39.7	60.3	53-71
2.36	79	265	56.5	43.5	42-58
1.18	32	297	63.3	36.7	34-48
0.6	14	311	66.3	33.7	26-38
0.3	44	355	75.7	24.3	18-28
0.15	51	406	86.6	13.4	12-20
0.075	41	447	95.3	4.7	4-10

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL Pro. Sig. Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-09-15-02**	**Date: 16-09-17**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub Division, BBMP, Bangaore.	
Address	:	Byatarayanapura Sub Division, BBMP, Banglore.	
Project Name	:	Improvements to Road and Drains at Agrahara Village to Lake Road in Ward No.05, Byatarayanapura Sub Division.	
Agency	:	Sri.Gopi Reddy No.03, 1st Cross, 1st Main, Ramachandrappa layout, Arebic collage post, erannapalya Bangalore-560045.	
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	15-09-17	
Sample ID No	:	2017-09-15-02/01	
Type of Mix	:	BM (Bituminous Macadam)	
Date of test	:	15-09-17	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	503	500
2	Weight of the sample After extraction	B	487	481
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	3.18	3.80
4	Average percentage	%	3.49	

AE ward No 5

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CIVIL PRO
AN ISO 9001 : 2008 COMPANY
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Lab ID : **CP-RW-2017-09-15-02** **Date: 16-09-17**

Sample ID No : **2017-09-15-02/01**

AFTER EXTRACTION(Trail-1)

Weight of Sample : 487 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	7.8	92.2	90-100
13.2	147	185	38.0	62.0	56-88
4.75	191	376	77.2	22.8	16-36
2.36	28	404	83.0	17.0	4-19
0.3	32	436	89.5	10.5	2-10
0.075	31	467	95.9	4.1	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample : 481 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	7.9	92.1	90-100
13.2	147	185	38.5	61.5	56-88
4.75	191	376	78.2	21.8	16-36
2.36	28	404	84.0	16.0	4-19
0.3	32	436	90.6	9.4	2-10
0.075	31	467	97.1	2.9	0-8

Note:-

The results pertain to the samples received and tested.
All information furnished by the Customer/ Representative.
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

Page 2/2

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com